

Multiplying Radical Expressions

Simplify.

1)  $3\sqrt{12} \cdot \sqrt{6}$

2)  $\sqrt{5} \cdot \sqrt{10}$

3)  $\sqrt{6} \cdot \sqrt{6}$

4)  $\sqrt{5} \cdot -4\sqrt{20}$

5)  $-4\sqrt{15} \cdot -\sqrt{3}$

6)  $\sqrt{20x^2} \cdot \sqrt{20x}$

7)  $\sqrt{15n^2} \cdot \sqrt{10n^3}$

8)  $\sqrt{18a^2} \cdot 4\sqrt{3a^2}$

9)  $-3\sqrt{7r^3} \cdot 6\sqrt{7r^2}$

10)  $-4\sqrt{28x} \cdot \sqrt{7x^3}$

11)  $\sqrt{3}(5 + \sqrt{3})$

12)  $2\sqrt{5}(\sqrt{6} + 2)$

13)  $-3\sqrt{3}(2 + \sqrt{6})$

14)  $\sqrt{3}(-5\sqrt{10} + \sqrt{6})$

$$15) -2\sqrt{15}(-3\sqrt{3} + 3\sqrt{5})$$

$$16) 5\sqrt{42x}(4 + 4\sqrt{7x})$$

$$17) \sqrt{14x}(3 - \sqrt{2x})$$

$$18) \sqrt{6n}(7n^3 + \sqrt{12})$$

$$19) \sqrt{3v}(\sqrt{6} + \sqrt{10})$$

$$20) \sqrt{21r}(5 + \sqrt{7})$$

$$21) (-2\sqrt{3} + 2)(\sqrt{3} - 5)$$

$$22) (5 - 4\sqrt{5})(-2 + \sqrt{5})$$

$$23) (-2 - 3\sqrt{5})(5 - \sqrt{5})$$

$$24) (\sqrt{5} - \sqrt{3})(\sqrt{5} + \sqrt{3})$$

$$25) (5\sqrt{2x} + \sqrt{5})(-4\sqrt{2x} + \sqrt{5x})$$

$$26) (-3\sqrt{3k} + 4)(\sqrt{3k} - 5)$$

$$27) (5 + 4\sqrt{3})(3 + \sqrt{3})$$

$$28) (3\sqrt{2} + \sqrt{5})(\sqrt{2} - 3\sqrt{5r})$$